

Economic Decline Eases in December; PMI Rises to 48%

DECEMBER REPORT

The economy declined in December for the eighth consecutive month, but at the lowest rate of decline since June 1989, say the nation's purchasing executives.

Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of materials management, Pitney Bowes, Inc.

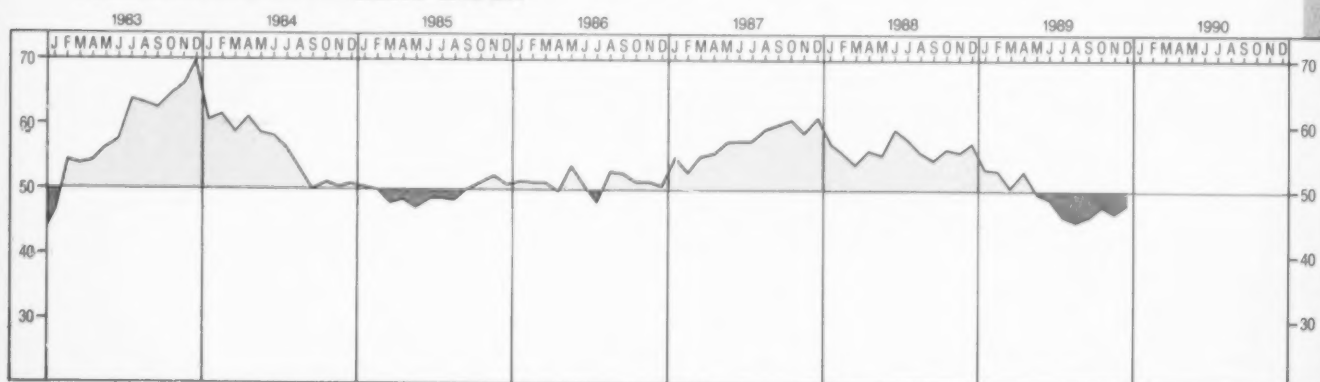
utives in their latest **Report on Business**. Aided by the year's most favorable seasonal adjustment factors, both the Production and New Orders indexes registered slight increases.

New Export Orders continued to expand, although the rate of growth was down from the previous month. Imports declined for the third consecutive month. Inventories declined, but at a lesser rate than in the past five months.

There was continued bright news concerning inflation. Prices declined for the seventh consecutive month at a slightly higher rate than last month. A total of 27 items were reported lower in price, compared to only 14 higher priced. Vendor Deliveries were faster for the eighth consecutive month and continues to reflect greater overall availability against a backdrop of slowing demand.

The **Report** was recently issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of materials management at Pitney Bowes, Inc. Said Bretz, "The manufacturing economy marked the eighth consecutive monthly decline in December. Although the year ending Purchasing Managers' Index at 48.0% was the highest since June 1989 (48.8%), the steady declines in both the Vendor Deliveries index and Price index confirms a continued weakness in the underlying economy in this, the eighth year of the recovery."

PURCHASING MANAGERS' INDEX



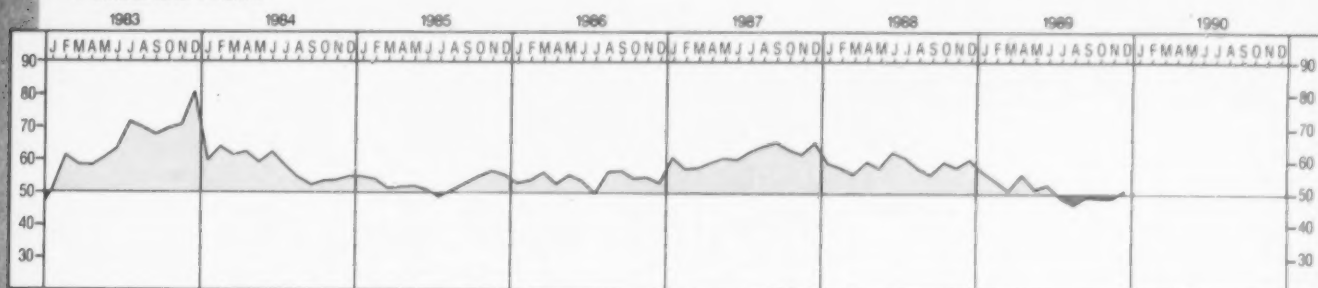
PURCHASING MANAGERS' INDEX (PMI)

December '88	57.3	July '89	46.0
January '89	53.2	August '89	45.2
February '89	53.0	September '89	46.0
March '89	50.4	October '89	47.6
April '89	53.0	November '89	46.6
May '89	49.7	December '89	48.0
June '89	48.8		

The **Purchasing Managers' Index (PMI)** rose in December to 48.0%, up from 46.6% in November. Although the 48.0% is the highest this indicator has been since June 1989 (48.8%), it is also the eighth consecutive monthly decline in the manufacturing economy. A reading below 50 indicates that the manufacturing economy is generally declining; above 50, that it is generally expanding. Bretz added, "The PMI has averaged 49.0% for all of 1989. Based on past experience, this is consistent with real GNP growth of about 1.6%, or 2.2% after adding the additional .6% in this year's GNP to reflect the rebound in agricultural output from last year's drought. The PMI would have to fall below 44% before indicating a decline in real GNP."

BUSINESS

PRODUCTION

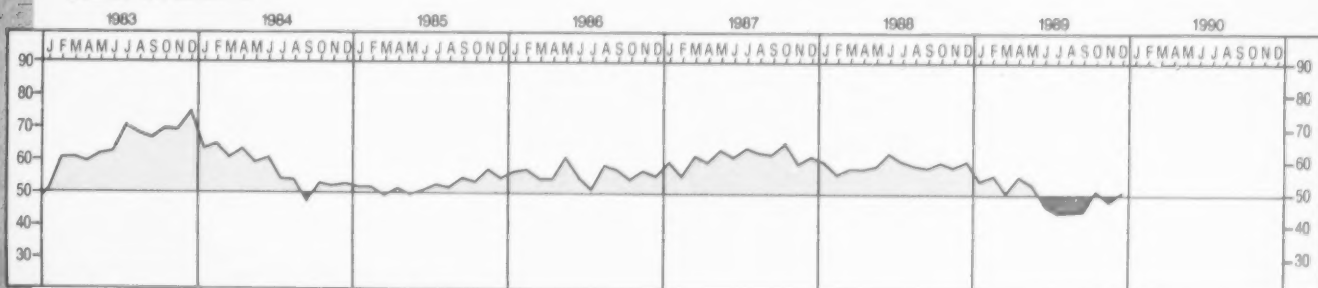


Peak — July 1981; Trough — November 1982.

Production increased in December after five consecutive months of decline which began in July 1989. The Production index rose to 50.6%, a full two points higher than November (48.6%). It is at the highest level since June 1989 (52.4%).

Production	%Better	%Same	%Worse	Net	Index
December	17	58	25	- 8	50.6
November	19	56	25	- 6	48.6
October	17	62	21	- 4	48.4
September	18	64	18	0	48.5

NEW ORDERS

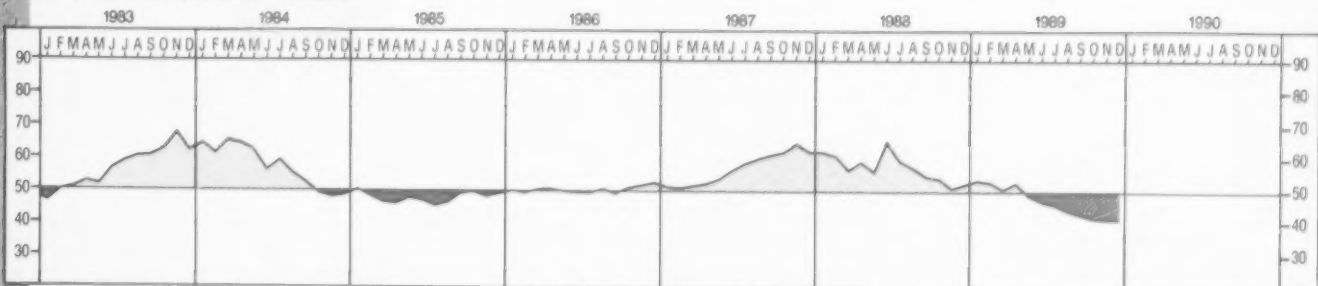


Peak — July 1981; Trough — November 1982.

New Orders increased in December after declining last month. The New Orders index rose to 50.4%, up more than two points from 48.1% in November. This is the second month the New Orders index has risen above 50% since it first declined in June 1989 after registering 48 consecutive months of growth.

New Order	%Better	%Same	%Worse	Net	Index
December	17	56	27	-10	50.4
November	20	52	28	- 8	48.1
October	21	54	25	- 4	51.4
September	23	50	27	- 4	45.4

VENDOR DELIVERIES



Peak — July 1981; Trough — November 1982.

Vendor Deliveries were faster in December for the eighth consecutive month. The Vendor Deliveries index inched lower to 42.2%, down from 42.5% in November and is the lowest since May 1982 (42.1%). The number of items in short supply increased to 13 from 10 in November.

Vendor Deliveries	%Slower	%Same	%Faster	Net	Index
December	4	78	18	- 14	42.2
November	5	75	20	- 15	42.5
October	3	81	16	- 13	42.7
September	4	80	16	- 12	43.8

IN SHORT SUPPLY

Bearings — 17th consecutive month; a consequence of antidumping suits; **Castings** — 13th time in 16 months; **Electric Motors** — 5th time in 9 months; **Bleached Paperboard** — 18th consecutive month; **Acetonitrile** — (used to remove tars, phenols, and coloring matter from certain petroleum and to extract fatty acids from animal and vegetable oils); **Caustic Soda/Soda Ash** — 31st consecutive month (used heavily in papermaking, petroleum refining, and soap-making); **Hydrogen Peroxide** — (increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins; used as a bleaching agent and, in solution, as a topical cleansing agent and antiseptic); **Melamine** — (used mainly to form synthetic resins with formaldehyde); **Sodium Chlorate** — 7th consecutive month, increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins (used heavily in paper-making and dyeing); **Titanium Dioxide** — 29th consecutive month (lead-free pigment used as a whitener in coatings, paints, paper, and other industrial applications); **Nylon**; **Rayon**; **Milk/Milk Powder** — 4th consecutive month; a consequence of increased

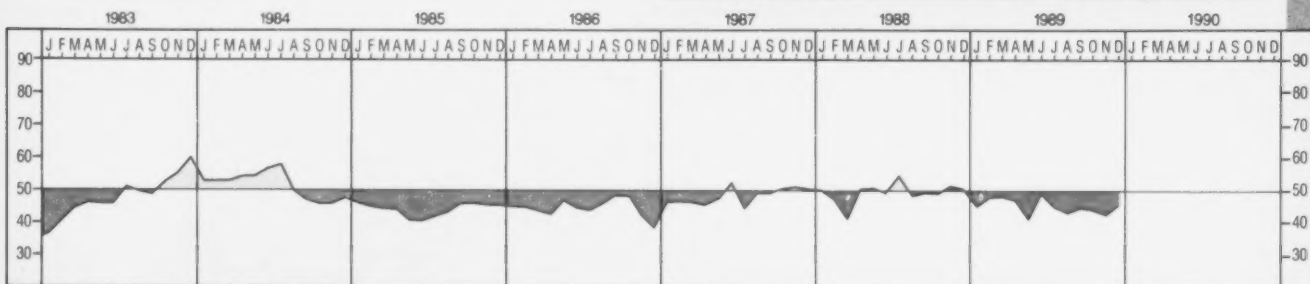
demand for dairy products, fewer dairy cows, exceptionally higher government exports of nonfat dry milk, and very low import quotas of nonfat dry milk (used in food processing).

UP IN PRICE

Bearings — 17th time in 18 months; **Castings** — 12th time in 17 months; **Electric Motors** — 5th time in 6 months; **Hydraulics**; **Switches**; **Benzene** — 3rd consecutive month (used heavily in making medicinal chemicals, dyes, varnishes, lacquers and resins); **Caustic Soda/Soda Ash** — 37th consecutive month, primarily as a consequence of lower demand for co-produced chlorine by paper makers (used heavily in paper-making, petroleum refining and soap making); **Freon** — 2nd consecutive month (used as a refrigerant); **Polyethylene Resins** — primarily as a consequence of shortages caused by explosion at Phillips Petroleum plant reducing about 8% of U.S. polyethylene resin output until mid 1990; **Silicon Wafers** — 2nd consecutive month (used in making semiconductors and integrated circuits); **Coal**; **Fuel Oil** — 3rd consecutive month; **Natural Gas** — 3rd consecutive month; **Sugar** — 2nd consecutive month.

INVENTORIES

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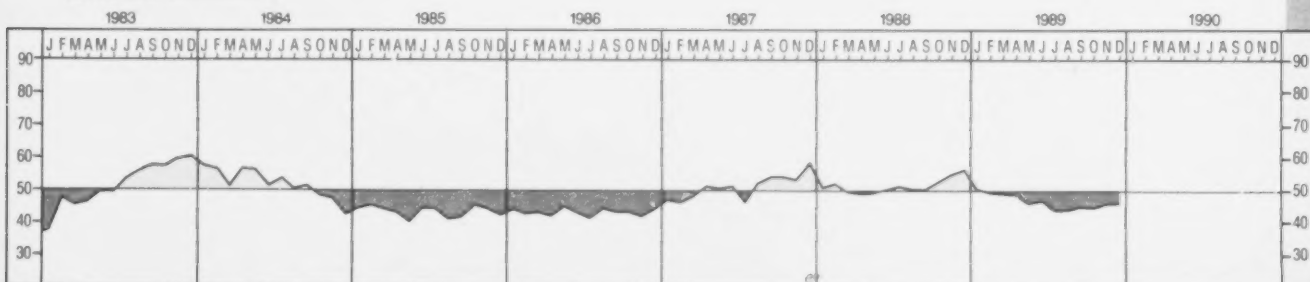


Peak — July 1981; Trough — November 1982.

Inventories declined in December, marking a full year of monthly declines. The Inventories index rose to 45.5%, or more than two points higher than last month (43.1%). The increase in the index from November to December is a reversal from the past three years, in which the index dropped in December due to manufacturers reducing their year-end inventory levels.

Inventories	%Higher	%Same	%Lower	Net	Index
December	15	55	30	-15	45.5
November	13	53	34	-21	43.1
October	13	60	27	-14	44.7
September	18	56	26	-8	45.1

EMPLOYMENT



Peak — July 1981; Trough — November 1982.

December marked the 11th consecutive month in which manufacturing employment declined. However, as in the previous two months, the rate of decline was not as great as the past month. The Employment index rose imperceptibly to 46.9%, up from 46.8% in November, and the highest since June 1989 (47.4%).

Employment	%Higher	%Same	%Lower	Net	Index
December	8	69	23	-15	46.9
November	12	65	23	-11	46.8
October	10	70	20	-10	45.8
September	9	71	20	-11	45.9

COMMODITY PRICES



Peak — July 1981; Trough — November 1982.

Prices declined in December for the seventh consecutive month, at a somewhat faster pace than in November. The Price index fell to 41.9%, down from November (42.7%) and along with October (also 41.9%) is the lowest since June 1985 (42.4%). This is an encouraging trend toward lower inflation as is the ratio of items reported lower priced (27) to those reported higher priced (14).

Prices	%Higher	%Same	%Lower	Net	Index
December	10	63	27	-17	41.9
November	10	64	26	-16	42.7
October	10	64	26	-16	41.9
September	10	65	25	-15	43.1

DOWN IN PRICE

Aluminum — 9th consecutive month; **Aluminum Products** — 2nd consecutive month; **Copper** — 2nd consecutive month after being reported up in price for 2 consecutive months in October 1989; **Nickel** — 7th consecutive month (used heavily in making stainless steel, plating metals, and batteries); **Steel** — 4th consecutive month, after being reported up in price in May 1989 for 33rd time in 34 months; **Steel Scrap** — 2nd consecutive month; **Stainless Steel** — After being reported up in price for the 15th time in 20 months in July 1989; **Zinc** — 7th time in 8 months (used heavily in metal alloys and as a protective coating for metal); **Printing Paper** — 5th time in 6 months, after being reported up in price in April 1989 for 25th time in 28 months; **Linenboard Medium** — (used heavily in making corrugated shipping cartons); **Chlorine** — 4th time in 9 months, primarily a consequence of lower demand by paper-makers switching to alternatives to avoid dioxins while demand for co-produced caustic soda continues (used heavily in bleaching paper and fabrics, purifying water, and in making synthetic rubber, plastics and other chemicals); **Ethylene** — 8th consecutive month (used heavily in making ethylene oxide,

plastic resins and glycols); **Ethylene Derivatives**; **Ethylene Glycol** — 2nd consecutive month (used heavily in making anti-freeze, brake fluid, plastic paint, and ink); **Propylene Glycol** — 2nd consecutive month (used heavily in making plastic resins, as a non-toxic anti-freeze in foods, a solvent for pharmaceuticals and substitute for ethylene glycol); **Methanol** — 11th time in 12 months (used heavily as a solvent and in synthesizing other chemicals); **Zinc Oxide** — (used heavily as a pigment in painting, cosmetics, driers, and inks); **Phenol** — 5th time in 7 months (used heavily in making phenolic resins); **Phenolic Resins** — (used in making plastic products); **Styrene** — 8th consecutive month (used chiefly in making synthetic rubber, plastic resins and plastic); **Latex** — (used heavily in coatings, paint, adhesives, and carpets); **Polyvinyl Chloride (PVC)** — 6th consecutive month (used in wire and cable coating, vinyl siding, pipe, tubing, textile finishes, belting, and auto interiors); **Polypropylene** — 9th time in 11 months (used in making fabrics, carpets and yarns); **Gasoline**; **Semiconductors** — (used heavily in PCs, autos, appliances, and military hardware); **Corn Starch** — (used heavily in food processing and in making paper); **Orange Juice** — 2nd consecutive month.

BUYING POLICY

Lead times for Production Materials lengthened slightly in December. The number of purchasers reporting lead times of 30 days or less rose to 57%, up from 53% in November.

Lead times for Capital Expenditures were somewhat less. The number of members reporting lead times in the significant 6 months or longer

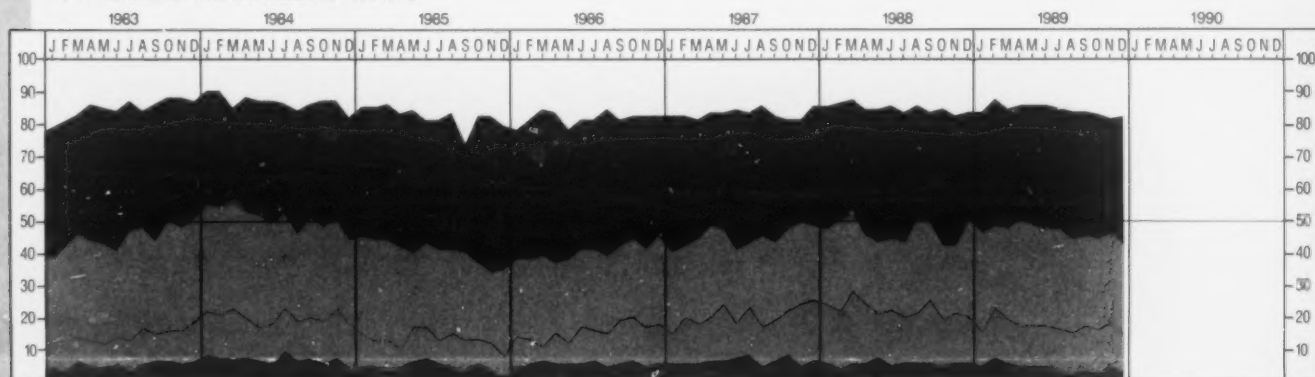
category was only 50%, down from 52% in the previous two months, and the lowest since June 1988 (49%).

Lead times for Maintenance, Repair and Operating (MRO) Supplies also declined. The number of purchasers reporting lead times of 30 days or less increased significantly to 90%, up from 85% in November and the most since May 1986 (also 90%).

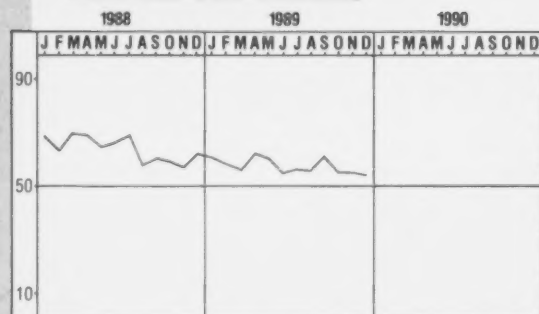
PERCENT REPORTING

	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer		Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer		Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer
Production Materials						Capital Expenditures						MRO Supplies					
December	17	40	27	13	3	December	11	6	15	18	50	December	42	48	7	3	0
November	16	35	28	14	5	November	11	7	13	17	52	November	42	43	12	2	1
October	17	36	28	14	3	October	12	7	14	15	52	October	42	47	10	1	0
September	16	38	28	14	4	September	10	7	13	16	54	September 1989	44	42	11	2	1

PRODUCTION MATERIALS



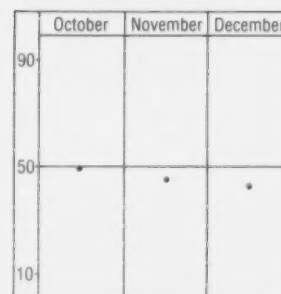
NEW EXPORT ORDERS



Of the 72% of members exporting, 15% reported better Export Orders, down from 16% last month. The 9% reporting worse Export Orders is up sharply from 5% in November. The seasonally unadjusted Export Orders index fell to 53.0%, down from the 55.5% in November and October 1989, and the lowest in the two-year history of this index.

	%Better	%Same	%Worse	Net	Diffusion Index	%Exporting
December	15	76	9	+ 6	53.0	72.0
November	16	79	5	+ 11	55.5	69.4
October	19	73	8	+ 11	55.5	73.0
September	27	67	6	+ 21	60.5	70.0

NEW IMPORTS



Of the 78.2% of members importing, 5% reported higher imports in December, down from 8% in November, while 14% reported lower imports, unchanged from last month. The result was the third consecutive drop in the seasonally unadjusted import index to 45.5%, down from 47.0% in November and 49.0% in October (the first survey month).

	%Better	%Same	%Worse	Net	Diffusion Index	%Exporting
December	5	81	14	- 9	45.5	78.2
November	8	78	14	- 6	47.0	76.4
October	10	78	12	- 2	49.0	73.0

DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured (New Orders, Production, Vendor Deliveries, Inventories, Employment and Prices), this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Vendor Deliveries), and the negative economic direction (lower, worse and faster for Vendor Deliveries), and the diffusion index.

The charts provide a basis for comparing current data with historical patterns.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays.

All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Vendor Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.